

Remarks

Claims 1-25 are pending in the application. Claims 1, 4-6, 10, 12, 14, and 17-18 have been amended. Claims 13 and 19 have been cancelled. The specification has been amended. The drawings have been amended. Reconsideration and re-examination of the application is respectfully requested.

1. The Examiner has rejected claim 9 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner stated that the limitation “the grooves are formed on the inner surface of the openings” in claim 9, lines 2-3 lacks antecedent basis.

Applicant respectfully disagrees with the Examiner that the elements “the grooves”, “the inner surface”, and “the openings” in dependant claim 9 lack antecedent basis. Each of these elements is set forth in the language of independent claim 1. Removal of the rejection of claim 9 under 35 U.S.C. 112, second paragraph, is respectfully requested.

2. The Examiner has objected to the drawings under 37 C.F.R. 1.83(a) for failing to show every feature of the invention specified in the claims. Specifically, the Examiner stated that the limitations “the receiving element grooves are inclined” and “the receiving element grooves have a teardrop shape” in claims 23-25 are not shown.

The drawings have been amended to add Fig. 5 showing the receiving element with angular grooves, as discussed on page 7, lines 13-16 of the specification. The drawings have also been amended to add Fig. 6 showing the receiving element with teardrop grooves, as

discussed on page 7, lines 16-18 of the specification. No new matter has been added to the specification, as a result of these amendments. Approval of the amendments to the drawings and removal of the objection is respectfully requested.

3. The specification has been amended to correct typographical and grammatical errors. The specification has also been amended to reference Figs. 5 and 6, which have been added to the drawings for the reasons set forth herein. No new matter has been added to the specification, as a result of these amendments. Approval of the amendments to the specification is respectfully requested.

4. The Examiner has rejected claims 1-5, 10-13, and 17 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,381,134 issued to Anselmo et al.

Claims 1 and 10 have been amended to recite that the contact pin is formed from a drawn metal wire and has an outer surface with machining marks formed in a longitudinal direction. As discussed in column 4, lines 7-57 and shown in Fig. 2 of Anselmo et al., Anselmo et al. teaches an electrical connector 20 adapted for engagement with a plated through-hole 13 in a circuit board 10. The electrical connector 20 has a conditioning means 30 consisting of grooves 32, 33 with sharp edges 36, 37 and a compliant section 23. The edges 36, 37 have a diameter such that the edges 36, 37 condition the through-hole 13 for engagement with the compliant section 23 when the electrical connector is inserted therein. Oppositely directed tabs 41, 42 facilitate proper insertion of the electrical connector 20 into the through-hole 13. Unlike the claimed invention, the electrical connector 20 is not formed from a drawn metal wire, as evidenced by the oppositely directed tabs 41, 42, the compliant section 23, and the conditioning means 30 of the

electrical connector 20. Additionally, Anselmo et al. is silent as to the electrical connector 20 having machining marks extending in a longitudinal direction. Anselmo et al. therefore does not teach all of the elements of claims 1 and 10. Removal of the rejection of claims 1 and 10 is respectfully requested.

Claims 2-5 depend from claim 1. Claims 11-12 and 17 depend from claim 10. Claim 13 has been cancelled for having subject matter now contained in amended claim 10. As previously discussed, Anselmo et al. does not teach all of the elements of claims 1 and 10. Anselmo et al. therefore does not teach all of the elements of claims 2-5, 11-12, and 17. Removal of the rejection of claims 2-5, 11-12 and 17 is respectfully requested.

5. The Examiner has rejected claims 1, 6-8, 10, 14-16, 18-19, and 25 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 3,897,131 issued to Stauffer.

As previously discussed, claims 1 and 10 have been amended to recite that the contact pin is formed from a drawn metal wire and has an outer surface with machining marks formed in a longitudinal direction. As discussed in column 4, lines 4-25 and shown in Figs. 4-5 of Stauffer, Stauffer teaches an electrical connecting device 2 comprising an insulating housing 4 with terminals 6 mounted therein. The terminals 6 have a central portion 42 with an enlarged diameter. A plurality of frusto-conical teeth 34 having sharp edges 40 for engaging the housing 8 are formed on opposite sides of the central portion 42. Unlike the claimed invention, the terminals 6 are not formed from a drawn metal wire, as evidenced by the central portion 42 and the teeth 34 of the terminals 6. Additionally, Stauffer is silent as to the electrical connector 20 having machining marks extending in a longitudinal direction. Stauffer therefore does not teach

all of the elements of claims 1 and 10. Removal of the rejection of claims 1 and 10 is respectfully requested.

Claim 18 has been amended to generally recite that the receiving element comprises openings with a substantially uniform inner surface formed for contacting a contact pin and the inner surface having receiving element grooves extending in a radial direction. As discussed in column 2, line 60 through column 3, line 3 and shown in Fig. 3 of Stauffer, Stauffer teaches a housing 4 having a contact terminal 6 receiving cavity with a portion 22 of uniform diameter, a conical cavity portion 24, a large diameter cavity portion 26, a second conical cavity portion 28, and a further enlarged diameter cavity portion 30. The Examiner identifies the conical cavity portion 24 and the second conical cavity portion 28 as the receiving element grooves of the claimed invention. Unlike the claimed invention, however, the cavity of Stauffer is neither substantially uniform nor formed for contacting a contact pin. Stauffer therefore does not teach all of the elements of claim 18. Removal of the rejection of claim 18 is respectfully requested.

Claims 6-8 depend from claim 1. Claims 14-16 depend from claim 10. Claims 19 and 25 depend from claim 18. As previously discussed, Stauffer does not teach all of the elements of claims 1, 10, and 18. Stauffer therefore does not teach all of the elements of claims 6-8, 14-16, 19, and 25. Removal of the rejection of claims 6-8, 14-16, 19, and 25 is respectfully requested.

6. The Examiner has rejected claims 1, 9, 18, and 20-24 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,021,094 issued to Hild et al.

As previously discussed, claim 1 has been amended to recite that the contact pin is formed from a drawn metal wire and has an outer surface with machining marks formed in a longitudinal direction. As discussed in column 2, lines 61-68 and shown in Fig. 3 of Hild et al.,

Hild et al. teaches a housing 11 having a conductive terminal 18. The terminal 18 has an upper surface 19 and a threaded bore 21 for receiving an externally threaded shaft 22 of a screw member 23 that has an enlarged head 24. Unlike the claimed invention, the threaded shaft 22 does not have machining marks extending in a longitudinal direction. Hild et al. therefore does not teach all of the elements of claim 1. Removal of the rejection of claim 1 is respectfully requested.

Claim 18 has been amended to generally recite that the receiving element is made from a non-conductive material and comprises openings with an inner surface formed for contacting a contact pin that has receiving element grooves. As discussed in column 2, lines 61-68 and shown in Fig. 3 of Hild et al., Hild et al. teaches a housing 11 having a conductive terminal 18 with a threaded bore 21. The Examiner identifies the threaded bore 21 of the conductive terminal 18 as the receiving element grooves of the claimed invention. Because the claimed invention requires that the receiving element grooves be formed in the inner surface of the non-conductive material of the receiving element, Hild et al. does not teach all of the elements of claim 18. Removal of the rejection of claim 18 is respectfully requested.

Claim 19 has been cancelled for having subject matter now contained in amended claim 18. Claim 9 depends from claim 1. Claims 20-24 depend from claim 18. As previously discussed, Hild et al. does not teach all of the elements of claims 9 and 20-24. Hild et al. therefore does not teach all of the elements of claims 9 and 20-24. Removal of the rejection of claims 9 and 20-24 is respectfully requested.

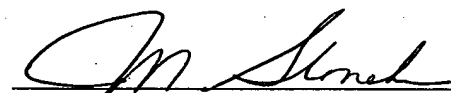
7. Claims 4-6, 12, 14, and 17 have been amended to correct antecedent basis based upon the amendments to their respective base claims, as previously discussed herein. Approval of these amendments is respectfully requested.

8. As discussed on page 6, lines 1-4 of the originally filed specification, "the receiving element 5 is made from a non-conductive material, such as plastic or other polymer". The cross-hatching of Fig. 2 has been amended to show the receiving element 5 as a non-conductive material. No new matter has been added as a result of this amendment. Approval of this amendment is respectfully requested.

In view of the amendments and arguments presented herein, the application is considered to be in condition for allowance. Reconsideration and passage to issue is respectfully requested.

Please charge any additional fees associated with this application to Deposit Order Account No. 501581.

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In the Drawings:

Sheet 1 showing amended Fig. 4 has been added to the drawings.

Sheet 2 showing Fig. 5 and Fig. 6 has been added to the drawings.